British Trypetidae, additional Notes.

By M. NIBLETT.

Since the publication of my notes on *Trypetidae* in the *Ent. Record*, June, 1934, further observations have produced the following results, which may probably prove of some interest to students of this family of flies.

Orellia (*Trypeta*) *winthemi*, Mg.—Since my notice of the breeding of this species (*Ent. Record*, March, 1934), I have bred the flies from larvae obtained at Banstead, Beddington and Riddlesdown, Surrey; the fly has also been taken at Hitchin, Herts. (Dr. F. W. Edwards), and Wrootham, Kent (Mr. H. W. Andrews), while Dr. K. G. Blair has bred it from larvae taken at Eynsford, Kent. I am inclined to believe that it is of rather local occurrence, as many flower-heads of its host-plant *Carduus crispus*, L., which I have examined from numerous localities, have not contained the larva.

Orellia (*Trypeta*) *ruficauda*, Fab. (*florescentiae*, L.)—This species I have bred from larvae inhabiting the flower-heads of *Cnicus pratensis*, L. (Meadow Thistle); the heads were collected at Epsom in October 1934, the flies emerging at the end of June 1935. I have again found the larvae (August 1935) on this plant in the same locality. This is, I am confident, the first record of *Cnicus pratensis* as a host-plant of any species of Trypetid.

I have also bred the fly from larvae in the flower-heads of *Cnicus arvensis*, L., these emerging in May and June.

Orellia (*Trypeta*) *falcata*, Scop.—The larvae of this species I found in the roots of *Tragopogon pratensis*, L. in July; they tunnel the upper part of the root, and lower part of the stem, pupating in the latter. The larvae are yellowish, and rather active. The flies emerged from the third week in May to the third week in June of the following year.

Orellia (*Trypeta*) *colon*, Mg.—Further observations on this species establish the fact that it is definitely double-brooded.

Rhagoletis (*Spilographa*) *alternata*, Fall.—Fruits of *Rosa canina*, L. containing larvae of this species were gathered on 13th October, 1934; the larvae began to leave the fruits the following day to pupate. The flies emerged from 5th to 21st June of the following year. From pupae given me by Mr. T. R. Eagles, the larvae of which had been feeding in the fruits of *Rosa hugonis* var. *platyacantha*, the flies emerged during the first week in June. Neither series yielded any parasites.

Acidia cognata, Wied.—Leaves of *Tussilago farfara*, L. (Coltsfoot) were found 13.x.34 with the larvae of this species in mines. One larva pupated in its mine, the remainder leaving the mines in the course of a few days and pupating in the earth. The flies emerged in mid-June of the following year. Mr. J. W. Saunt sent me pupae of this species from mined leaves of *Petasites ovatus*, Hill. (Butterbur); the flies from these had all emerged by 10th June. This must I think be a rather local species. I have examined Coltsfoot in many localities, but have only succeeded in finding it in one of them.

Trypeta (*Spilographa*) *zoë*, Mg.—The larvae of this species have in my garden for some years past mined the leaves of *Chrysanthemum maximum*, and to a less extent those of *C. indicum*; in 1933 the larvae were so heavily parasitized by Chalcids, that in 1934 it was difficult to find a mined leaf, but in 1935 the leaves were again heavily attacked.

About mid-June mined leaves were collected and by the end of the month many larvae had pupated. The leaves not keeping very well, and there being many young larvae, I introduced fresh leaves which the larvae made use of. The larvae are very active, yellowish and semi-transparent, they gnaw away the cuticle of the leaf until they can insert the head, then force the head under, and form the mine by alternately gnawing and forcing up the cuticle with the head; the pupal period is short, about two weeks, the flies emerging during the latter half of July.

Ensina sonchi, L.—I have bred this species from larvae in flower-heads of *Picris hieracioides*, L. In 1934 heads with larvae and pupae in them were found on 18th August, from which the flies emerged on 22nd August, and 8th to 26th September. In 1935 heads with larvae in them on 10th August yielded the flies on the 17th. There is I feel sure more than one brood of this species, but they apparently overwinter as imagines.

Paroxyna (*Tephritis*) *plantaginis*, Hal.—The larvae of this species feed and pupate in the flower-heads of *Aster tripolium*, L. The larvae in a batch of heads collected on 8th September had all pupated by 12th October, the flies emerging from 21st June to 18th July of the following year. It seems remarkable that this species should survive in the locality from which the larvae were taken, the plants being covered by water at high tide, the puparia falling rather easily out of the ripe flower-heads, and the larvae being heavily parasitized by Chalcids. From 131 puparia I bred 24 *P. plantaginis* and 52 Chalcids, one species of these emerging in some numbers during May, while another species emerged from mid-June to the end of July.

Myopites longirostris, Lw. (*frauenfeldi*, Sch.).—I have been able to breed this species through the kindness of Mr. H. W, Andrews, who sent me a number of galled flower-heads of *Inula crithmoides*, L., from the Isle of Wight, containing larvae and pupae of this species. From these the flies emerged from 18th August to 16th September in considerable numbers, twice as many ♀ ♀ as ♂ ♂ emerging; they were but slightly parasitized by Chalcids; these emerged during September.

Terellia (*Trypeta*) *longicauda*, Mg. (*acuticornis*, Lw.).—I have bred this species from flower-heads of *Cnicus eriophorus*, Roth. (Woolly-headed Thistle), the flies emerging from 26th June to 18th July in considerable numbers. I have bred no parasites from the larvae of this species; the very large flower-heads they inhabit probably being some protection.

Chortophila (*Egeria*) *cinerea*, Pand. (*Anthomyiidae*).—I have introduced this note referring to the above species owing to the fact that I had mistaken the larvae and pupae for those of some species of Trypetid.

I have found occasional larvae in the flower-heads of *Senecio jacobaea*, L. and *S. erucifolius*, L. for several years, but failed to breed out the fly; a few pupated, but the majority died in the larval stage or were parasitized by Braconids. On 13.x.34 I gathered a number of flower-heads of *S. jacobaea* at Epsom with larvae in them, these pupated shortly after, and in the following June and July, 2 ♂ ♂ and 2 ♀ ♀ of *C. cinerea* emerged from 20 pupae. This is I believe the first record of the host-plant of the larva of this species. Mr. H. W. Andrews kindly identified the flies.